IN THE CLAIMS:

Please amend claims 1 and 13, and add new claims 31 and 32, as follows:

1. (Presently Amended) A method for providing a system for high fidelity reproduction of the acoustic signal from a selected type of acoustical generator, the method comprising:

(1) determining a selected location proximate to an acoustical generator;

(2) placing a first microphone at said selected location;

(3) separately generating sounds from the acoustical generator to produce sounds as picked up by the first microphone;

(4) playing reference sounds of the acoustical generator;

(5) comparing the sounds of the acoustical generator as picked up by the first microphone with the reference sounds as generated by the acoustical generator; [and]

(6) determining first and second differences in level over first and second respective discrete frequency ranges between the sounds of the acoustical generator as picked up by the first microphone at the selected location and the reference sounds as generated by the acoustical generator;

(7) assembling a first filter element, said first filter element including components selected to compensate for said first difference in level over said first discrete frequency range;

(8) assembling a second filter element, said second filter element including components selected to compensate for said second difference in level over said second discrete frequency range;

[(6)] (9) constructing [a tailor-made] an equalizer for the first microphone[, said equalizer including an arrangement of] by arranging said first and second [tailored] filter elements so as to compensate for the first and second differences between the sounds as picked up by the microphone at the selected location and the reference sounds as generated by the acoustical generator.

2. (Pending) The method of claim 1 wherein in said placing step, said first microphone is attached to the acoustical generator.

3. (Pending) The method of claim 1 wherein the step of comparing the sounds picked up by the first microphone with reference sounds of the acoustical generator is made by listening directly to the two sounds.

4. (Pending) The method of claim 2 wherein the step of comparing the sounds picked up by the first microphone with reference sounds of the acoustical generator is made by listening directly to the two sounds.

5. (Pending) A method for providing a system for high fidelity reproduction of the acoustic signal from a selected type of acoustical generator, the method comprising:

(1) determining a selected location proximate to a first embodiment of a selected type an acoustical generator;

(2) placing a first microphone at said selected location;

(3) separately generating sounds from the acoustical generator, to produce sounds as picked up by the first microphone;

(4) playing reference sounds of the acoustical generator;

(5) comparing the sounds of the acoustical generator as picked up by the first microphone with the reference sounds as generated by the acoustical generator;

(6) replacing the first embodiment of the acoustical generator of step (1) with a next embodiment of the selected type of acoustical generator:

(7) repeating steps (2) through (5) with the next embodiment of the selected type of acoustical generator;

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(8) constructing a tailor-made equalizer for the first microphone, said equalizer including an arrangement of tailored filter elements to compensate for differences between the sounds as picked up by the microphone at the selected location and the reference sounds as generated by the acoustical generator.

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Presently Amended) A system for high fidelity electronic reproduction of the acoustic signal from a selected type of acoustical generator, the system comprising:

a microphone element adapted to be placed at a specified selected location proximate to the acoustical generator; and

an equalizer that includes an arrangement of [tailored] at least first and second filter elements to compensate for respective first and second differences in level between the sounds of the acoustical generator as picked up by the microphone at the selected location compared with corresponding reference sounds as generated by the acoustical generator over respective first and second discrete frequency ranges .

14. (Pending) The system of claim 13 wherein the microphone element is further adapted to be attached to a preselected location on the acoustical generator.

15. (Pending) The system of claim 14 wherein said equalizer includes at least one digital filter.

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Canceled)

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22. (Canceled)

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23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Pending) The method of claim 1 wherein in said constructing step, the tailored filter elements include variable controls.

29. (Pending) The method of claim 5 wherein in said constructing step, the tailored filter elements include variable controls.

30. (Pending) The system of claim 13 wherein in said constructing step, the tailored filter elements include variable controls.

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31. (New) The method of claim 1 wherein at least one of frequency-bandwidth, gain, and Q parameters of at least one of said first and second filter elements has a limited variability range of operation based on the determining operation of step 6.

32. (New) A method for providing a system for high fidelity reproduction of the acoustic signal from a selected type of acoustical generator, the method comprising:

(1) determining a selected location proximate to an acoustical generator;

(2) placing a first microphone at said selected location;

(3) separately generating sounds from the acoustical generator to produce sounds as picked up by the first microphone;

(4) playing reference sounds of the acoustical generator;

(5) comparing the sounds of the acoustical generator as picked up by the first microphone with the reference sounds as generated by the acoustical generator;

(6) determining first and second differences in level over first and second respective discrete frequency ranges between the sounds of the acoustical generator as picked up by the first microphone and the reference sounds as generated by the acoustical generator; and

(7) constructing an equalizer for the first microphone to compensate for the first and second differences between the sounds as picked up by the microphone at the selected location and the reference sounds as generated by the acoustical generator wherein at least one of frequency-bandwidth, gain, and Q parameters of at least one of said first and second frequency ranges has a limited variability range of operation based on the determining operation of step 6.